

ChemStar Dry

Revolutionary oil-free vacuum system

- Deep vacuum
- Chemical resistant
- Plug & Play



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Revolutionary oil-free vacuum system

Welch's ChemStar® Dry vacuum system integrates a proprietary vacuum blower with patented PTFE diaphragm technology. The result? The first chemical resistant dry pump alternative to oil-seal pumps - the technology of choice for deep vacuum chemical applications.

How it works

ChemStar Dry pumps quickly down to the working pressures for most evaporative operations (10 to 0.08 torr). It is in this range that ChemStar Dry creates maximum flow for high performance evaporation - clean, fast, and thorough. Cold trapping is often not needed (application specific), there is no oil, and the system automatically maintains and protects itself for repeatable robust performance.

Applications

ChemStar Dry is suitable for all applications where high gas flow and deep vacuum are needed.

- Schlenk Line
- Freeze Dryer
- Vacuum Oven
- Glove Boxes

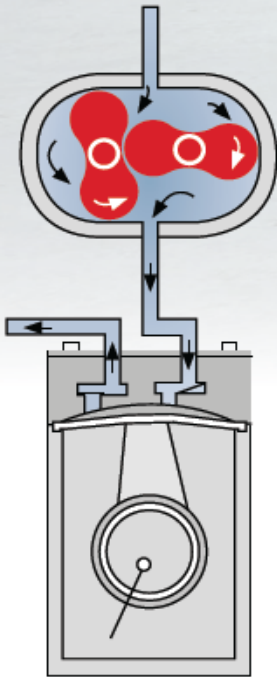


Product characteristic

-  Oil-free
-  Deep Vacuum
-  Chemical Resistant
-  Plug & Play



| Pump design
ChemStar Dry

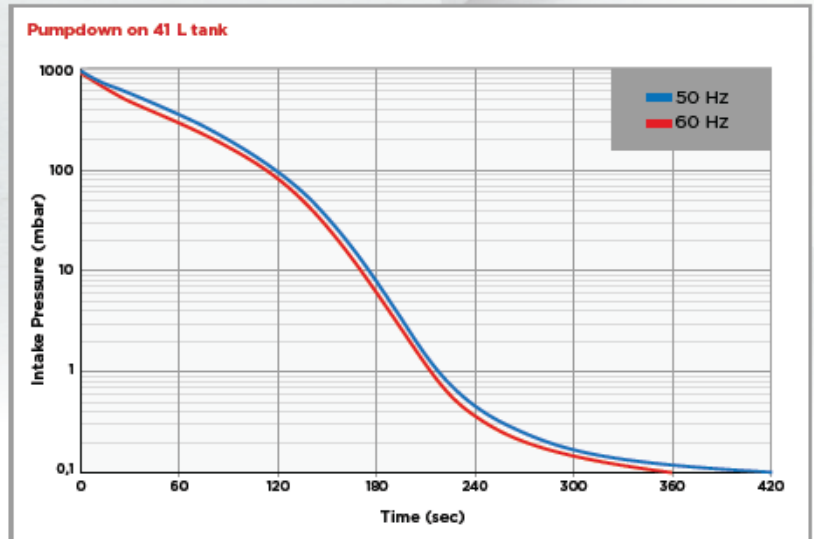
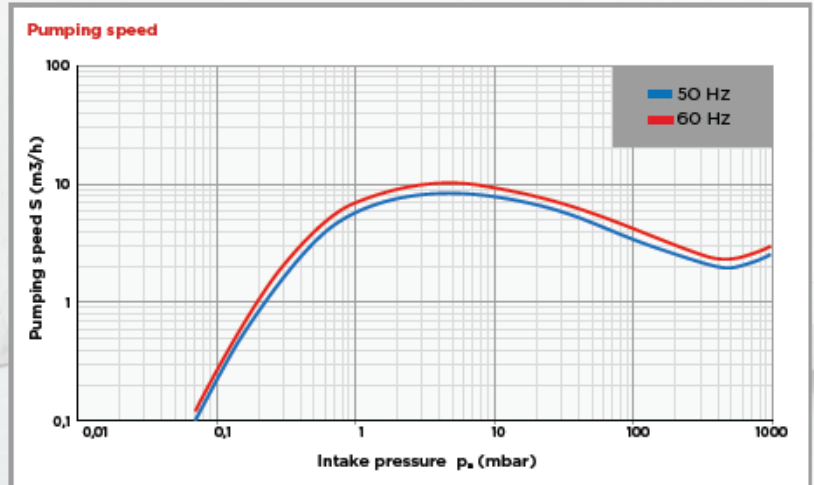


| Operation principle
ChemStar Dry

| Roots blower

| Diaphragm vacuum pump

Technical Features



Specification

Cat. No. 2070B-01

Pumping speed, 60 Hz at 2 torr	150 L/min (9 m³/h)
Ultimate vacuum pressure	5×10^{-2} torr (7×10^{-2} mbar)
Inlet-/Outlet Connection	NW 25
Overall Dimensions (L/W/H)	18 x 9 x 18"
Weight	50 lbs



> **Oil-Free**

- No oil back-streaming
- No oil maintenance/disposal
- Cleaner work place environment
- Contaminant-free samples



> **Plug and Play**

- Patented software control
- Auto speed control from atm to 0.05 torr
- Self-cleaning maintains performance
- Protection from pressure surges



> **No cold trapping for select applications**

- No dry ice or trap apparatus needed
- Less maintenance
- Lower cost of ownership
- Extra bench space



> **Chemical Resistant**

- Pumps corrosive vapor/gases
- PTFE and proprietary coatings

Best results in laboratory research



Benefits at a glance:

Time-saving

Increase productivity

- > No oil-related maintenance work is required
- > No time spent maintaining cold trap for select applications
- > Maintenance intervals are extended by integrated self-cleaning function

Friendly to Process & Environment

Eliminate impacts associated with oil

- > Avoid oil disposal and handling mess
- > Stop oil contamination of samples
- > End oil misting and odors in lab

Outstanding reliability

Durable pump, repeatable vacuum performance

- > Robust, chemical resistant pumping mechanism
- > Proprietary vapor-load compensation automatically protects blower mechanism
- > The diaphragm lasts longer due to integrated self-cleaning function (removes volatile contaminants)

Space-saving

Have more room to move in your lab

- > Cold trap not required for select applications
- > Compact design enables flexible installation options
- > Beveled control panel enables convenient under-counter installation and operation

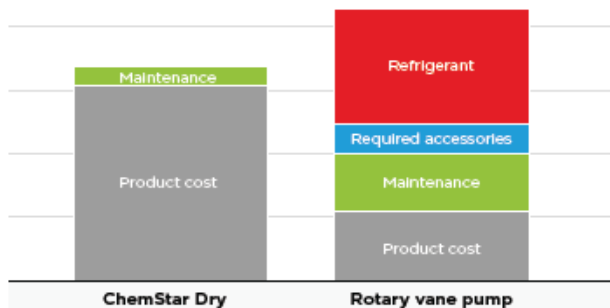
Cost-efficient

Lessen your vacuum costs

- > Eliminate oil-related costs (oil changes and disposal)
- > Minimize maintenance, spend time more productively
- > Avoid the expense of purchasing and operating cold trap for select applications

5-Year Cost Comparison

Beyond the pump purchase price, consider the overall costs to configure and operate an oil-seal vacuum pump system. ChemStar Dry can change the ways you spend your time and your operating budget.



Maintenance:

Service parts, oil changes/disposal, time required

Required accessories: Cold trap, exhaust filter

Refrigerant:

250 days per year, 5 lbs dry ice per day

Order Information

Description	Cat. No.	
	MAX. 150 LPM	MAX. 300 LPM
ChemStar Dry 115V, 60Hz, 1Ph with North American cord set	2070B-01	2080B-01
ChemStar Dry 230V, 50/60 Hz, 1Ph with Schuko and UK cord set	2070C-02*	2080C-02

* Has CE Mark

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Accessories

Diagnostic Vacuum Gauge

- > Handheld, thermocouple sensor
- > Battery operated (4 AA)



Cat. No.	Range, torr	Functions
1526K-10	10 ⁻³ to 6	Digital readout
		Graph vs time
		System status

Rubber Hose Adapters

- > ISO NW to rubber vacuum hose
- > Aluminum



ISO	Hose I.D.	A	B	Cat. No.
NW 25	7/16"	0.545	1.65	501264
NW 25	3/4"	0.750	1.65	501263
NW 25	13/16"	0.875	1.73	501262

Red Vacuum Hose

- > Very thick walls prevent collapse
- > 5 or 10 ft. lengths



I.D.	Wall Width	O.D.	5 ft. Cat. No.	10 ft. Cat. No.
7/16"	5/16"	1-1/16"	331040-5	331040-10
3/4"	1/2"	1-3/4"	331060-5	331060-10

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